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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/691,419	10/17/2000	Gordon MacKay	CISCP261	4308

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EXAMINER
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HALIYUR, VENKATESH N

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 09/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

51

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/691,419		MACKAY ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Venkatesh Haliyur		2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21, (13 canceled) is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 & 14-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed on 06/26/2006 has been considered but is ineffective to overcome the Benedict et al. reference. In the amendment of 06/26/2006 applicant canceled the previously rejected claim 13 and combined it with claim 5.
2. Claims 1-21 are pending in the application. Claim 13 canceled.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-12,14-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Benedict et al [US Pat: 5,321,812].

Regarding claim 1, Benedict et al. in their invention of " Loop Detection and Dissolution in a Focal Point Network" disclosed a method for reconfiguring a communication system (**Fig 1**) comprising a plurality of nodes (**items 10,12,14,16,18, 20,22,24,26,28,30 of Fig 1**) coupled by a plurality of communication links (**items A, B, C, D, E, F, G of Fig 1**) comprising, determining that said communication system includes a closed loop topology in response to receipt of a communication at least a first of said plurality of nodes (**Fig 5, col 6, lines 7-19**), at least temporarily preventing effective communication across a selected one of said plurality of communication links by deactivating (**dissolve or revoke the server/served relationship, col 2, lines 65-68**) at least one of said communication links to change said closed loop topology to an open topology (**Fig 6, col 6, lines 7-29**) [**Figs 1-6, col 2,lines 39-68,col 3,1-68,col 4,lines 1-65,abstract**].

Regarding claims 2,3,12, Benedict et al. disclosed designating one of said plurality of nodes as a loop-breaking master (**focal point node or server node, items 10 of Fig 1**) in response to said step of determining, wherein said step of preventing is performed in response to a control signal or communication output (**message**) by said loop-breaking master and said first node is said loop-breaking master [**Figs 1,5,6 col 2, lines 39-68,col 3, 1-68, col 4, lines 1-65, col 6, lines 1-29**].

Regarding claim 4, Benedict et al. disclosed a method for reestablishing effective communication over said selected one of said plurality of communication links in response to detection of a link loss [**col 4, lines 44-65, col 6, lines 7-41**].

Regarding claim 5, Benedict et al. disclosed a method for detecting loop topology in a communication network (**Fig 1**) having a plurality of nodes (**items 10,12,14,16,18, 20,22,24,26,28,30 of Fig 1**) coupled by a plurality of links (**items A, B, C, D, E, F, G of Fig 1**) wherein each of said plurality of nodes is associated with a determinable node value (**address or ID, item 144 of Fig 7, col 6,lines 42-47, col 7,lines 4-22**) comprising, sending at least a first communication from a first node (**item 50 of Fig 5**) to at least a second node (**item 52 of Fig 5**), said first communication (**message**) including an indication of said node value of said first node, said second node receiving said communication from said first node which includes a received node value and comparing said received node value to a first node value which is the node value of said second node, said second node outputting a signal indicative of a closed loop topology when said received node value equals said first node value and the step of sending said first communication (**message**) from said first node is performed in response to a change in the number of nodes or links in the system [**Figs 5-8, cols 1-2, lines 1-68,col 3,1-68,col 4,lines 1-65,col 6, lines 7-68, col 7, lines 3-64,abstract**].

Regarding claims 6,7, Benedict et al. disclosed that the second node (**NFP node or served node, item 54 of Fig 5**) outputting a communication (**message**) which includes said received node value (**address**) when said received node value is closer to a predetermined node value than said first node value (**FP node or server node, item 50 of Fig 5**) [**Figs 4,5, col 4, lines 1-68, col 5, lines 1-68, col 6, lines 1-47**].

Regarding claims 8-10, Benedict et al. disclosed that the second node outputting a communication (**message**) which includes said first node value when said first node

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value is less than said received node value and also first node value is greater (**next node**) than said received node value and said node values are node addresses [**Figs 4,5, col 4, lines 1-68, col 5, lines 1-68, col 6, lines 1-47**].

Regarding claim 11, Benedict et al. disclosed that said nodes include network (**Ethernet**) repeaters (**LU**) coupled to a control point (**switch**) in the network [**col 1, lines 1-68, col 2, lines 1-35, col 4, lines 1-65**].

Regarding claims 14,15,19, Benedict et al. disclosed a method for avoiding node isolation in a network communication system having a plurality of nodes (**items 10,12,14,16,18, 20,22,24,26,28,30 of Fig 1**) coupled by a plurality of communication links (**items A, B, C, D, E, F, G of Fig 1**), the method comprising, deactivating at least a first communication link to provide a system having an open topology with no isolated nodes, detecting effective loss of a communication link, and reactivating (**operating mode**) said first communication link and further disclosed a method the step of deactivating (**inactive**) is performed in response to detection of a closed loop topology [**Fig 1, col 3, lines 31-68,col 4, lines 65-68, col 5,lines 1-68, col 6, lines 1-41**].

Regarding claim 16, Benedict et al. disclosed a method of reconfiguring a communication system (**Fig 1**) comprising a plurality of nodes (**items 10,12,14,16,18, 20,22,24,26,28,30 of Fig 1**) coupled by a plurality of communication links (**items A, B, C, D, E, F, G of Fig 1**) comprising, a state machine (**status/vector, SOC table**) in at least one of said plurality of nodes configured to determine that said communication system includes a closed loop topology in response to receipt of a communication (**loop detection message**) at said one of said plurality of nodes, said state machine (**status**

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**maintained for each node)** also configured to provide a control signal to at least temporarily prevent effective communication across a selected one of said plurality of communication links by deactivating **(dissolve or revoke the server/served relationship, col 2, lines 65-68)** to change said closed loop topology to an open topology **[Figs 2-3, 6-8, col 4, lines 66-68, cols 5-6, lines 1-68, col 7, lines 1-64]**.

Regarding claims 17,18, Benedict et al. disclosed that the state machine **(status/vector, SOC table)** is further configured to designate one of said plurality of nodes as a loop-breaking master **(focal point node or server node)** in response to said step of determining, wherein said control signal or communication output **(message)** by said loop-breaking master and state machine is further configured to reestablish effective communication over said selected one of said plurality of communication links in response to detection of a link loss **[Figs 1-3,col 4, lines 44-65, col 6, lines 7-41]**.

Regarding claims 20,21, Benedict et al. disclosed means for deactivating, means for detecting and means for reactivating comprises **(CP of Fig 2 and 3)** at least a first state machine **(status, SOC table)** coupled to at least a first of said plurality of nodes and means for deactivating includes means for deactivating in response to detection of a closed loop topology **[Figs 2-3, col 4, lines 25-68, col 5-7, lines 1-68]**.

***Response to Arguments***

5. Applicant's arguments, see remarks, filed on 06/26/2006 have been fully considered but they are not persuasive. Examiner respectfully traverses applicants to Benedict et al. reference as follows,

a. With respect to applicant's arguments for claims 1,14,16, and 19 that reference fails to teach preventing effective communication across a communication link and deactivating at least one of said communication links, However Benedict et al. disclosed that the loop detected message operates to ***dissolve or terminate*** the server/served relationship by opening the loop formed in the communication links between network nodes (**Fig 1, col 2, lines 65-68, col 6, lines 64-68, col 7, lines 1-3**).

b. With respect to applicant's arguments for claims 5,14 & 19 that reference fails to teach detecting effective loss of a communication link and activation, deactivation or detect status of communication links between network nodes and the loop detection techniques are applicable outside of the focal point or management services context, However, Benedict et al. disclosed a **topology database and sphere of control (SOC) table** for both focal and non-focal nodes to update current status of the relationship between nodes including status of links (path) between the nodes and further disclosed that the relationship established by two linked nodes without regard to existing management services relationship [**Fig 2, col 4, lines 44-67, col 5 lines 1-42**].



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c. With respect to applicant's argument for claim 5 that reference fails to teach sending of communication upon the removal of a node or changes in number of links in the system, However, Benedict et al. disclosed that the messages are generated when a loop is detected and the server/served relationship between the two nodes are terminated and the message containing the node identifier [col 6, lines 20-67, col 7 lines 1-10].

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616.

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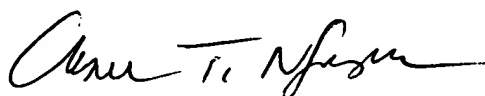
The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached @ (571)-272-3139. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

WH  
02/29/06



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